



cosmetic ingredients

NATURAL ASPECT OF CHEMISTRY

Company Profile

3-S Mühendislik is a lubricant/oleochemical manufacturing company that was established back in 1993 in Turkey. At the very beginning, 3-S started production of Lubricants in cooperation with Quaker Houghton. In the course of time, this lubricant business has evolved into producing new generation oleochemicals (i.e. Esters) under the trademark TRIEST with its own proprietary know-how. Now, 3-S supplies numerous types of Esters (Fatty Acid, Fatty Acid Complex, Trimellitate, Polyol, Phosphate, Oxo Alcohol etc.) for various industries (Cosmetics, Lubricants, Coatings, Inks, Textile Chemicals, etc.) through its four premises: Turkey Factory, Turkey HQ, Uganda Factory and Netherlands Office.

Sustainable, Eco-friendly, Tailor-Made

3-S achieves sustainable supply by using renewable, bio-based and environmentally friendly raw materials from globally-known suppliers. Agile and highly capable R&D, Supply Chain and Production Teams facilitate continuous learning within the organization and thereby quick adoption of innovative technologies. This makes 3-S a valuable partner for tailor-made solutions.

Quality Driven Culture

3-S has a quality driven business culture, which always prioritize first time through performance. This approach has been excelled through its 30-year corporate life, partnership with global organizations such as Quaker Houghton, Savita Oil Technologies, Chem-Trend and a customer base comprising many Turkey Fortune 500 companies.



14001 2015
45001 2018
9001 2015



No	Product Name	INCI Name
1	TRIEST CMCT-0811	Caprylic/Capric Succinic Triglyceride
2	TRIEST EHC-0611	Ethylhexyl Cocoate
3	TRIEST EHL-0511	Ethylhexyl Laurate
4	TRIEST EHM-0611	Ethylhexyl Myristate
5	TRIEST EHO-0811	Ethylhexyl Oleate
6	TRIEST EHP-0811	Ethylhexyl Palmirate
7	TRIEST EHS-0911	Ethylhexyl Stearate
8	TRIEST GDO-0411	Glyceryl Dioleate
9	TRIEST GDS-1911	Glyceryl Distearate
10	TRIEST GML-2111	Glyceryl Laurate
11	TRIEST GMO-4011	Glyceryl Oleate
12	TRIEST GMO-9021	Glyceryl Oleate
13	TRIEST GMS-9011	Glyceryl Stearate
14	TRIEST GMS-4011	Glyceryl Stearate
15	TRIEST GMS-4011 SE	Glyceryl Stearate SE
16	TRIEST MCT-6411	Caprylic/Capric Triglyceride
17	TRIEST PGDO-4011	PEG-8 Dioleate
18	TRIEST PGMO-4011	PEG-8 Oleate
19	TRIEST SML-1711	Sorbitan Laurate
20	TRIEST SMO-1711	Sorbitan Oleate
21	TRIEST SMS-1511	Sorbitan Stearate

CAS Number	Main Application	Form (25°C)	Viscosity (40°C)	HLB Value	Iodine Value	Gardner
91744-56-8	Emollient	Liquid	78-88	-	Max. 2	Max. 2
92044-87-6	Emollient	Liquid	4-6	6,6	Max. 5	Max. 1
20292-08-4	Emollient	Liquid	4-6	7,5	Max. 5	Max. 1
29806-75-5	Emollient	Liquid	5-7	6,7	Max. 5	Max. 1
26399-02-0	Emollient	Liquid	7-9	6,2	63-71	Max. 2
29806-73-3	Emollient	Liquid	7-9	5,8	Max. 5	Max. 1
22047-49-0	Emollient	Liquid	8-10	5	Max. 5	Max. 1
25637-84-7	Emulsifier	Liquid	35-45	1,8	80-95	Max. 3
1323-83-7	Consistency Factor	Solid	-	2,1	Max. 5	-
248-337-4	Emulsifier	Solid	-	5,2	Max. 5	-
25496-72-4	Emulsifier	Wax	-	-	80-95	-
25496-72-4	Emulsifier	Liquid	90-110	-	100-130	Max. 4
31566-31-1	Consistency Factor	Solid	-	3,8	Max. 5	-
31566-31-1	Consistency Factor	Solid	-	3,4	Max. 5	-
11099-07-3	Emulsifier	Solid	-	5,8	Max. 5	-
73398-61-5	Emollient	Liquid	13-16	3,8	Max. 5	Max. 1
922-575-5	Emulsifier	Liquid	35-45	9,5	80-95	Max. 2
9004-96-0	Emulsifier	Liquid	40-50	11,8	65-70	Max. 2
1338-39-2	Emulsifier	Liquid	580-610	8,7	Max. 5	Max. 7
1338-43-8	Emulsifier	Liquid	-	4,4	65-75	Max. 10
1338-41-6	Emulsifier	Solid	-	4,7	Max. 5	-

EMULSIFIER

Emulsifiers are auxiliary ingredients to solve immiscible components in a product. Emulsifier molecules consist of a hydrophilic head and a lipophilic tail. This enables the molecules to bond with immiscible components such as oil and water. Emulsifiers also help carry vitamins and antioxidants to further layers in the skin.

TRIEST **GMO-4011**

Glyceryl Oleate

It is produced by the esterification reaction between oleic acid and glycerine. GMO shows oil in water emulsion properties. This enables it to create a stable emulsion by balancing oil and water in the mixture.

- » Acts as a softening emulsifier when used in skin care products
- » It is an oil soluble surfactant
- » Can be used as a pigment dispersant in color cosmetics
- » Increases skin elasticity
- » Provides smoothness in skin and hair
- » Moisturizing
- » Thickener and stabilizer

TRIEST **GMS-4011 SE**

Glyceryl Stearate SE

It is a white colored ester of stearic acid and glycerine in solid form. 3-6 % Potassium Stearate in its structure provides the ester with self emulsifying properties.

- » Prevents moisture loss by creating a barrier on the skin
- » Smoothens and softens the skin
- » Moisturizing
- » Protects skin from free radicals
- » Helps pH balance
- » Shows good emulsifier properties

TRIEST **SMO-1711**

Sorbitan Oleate

It is an ester of oleic acid and sorbitol. Sorbitan Monooleate is a nonionic surfactant and a lipophilic emulsifier in W/O emulsions.

- » It is a good emulsifier
- » Smoothens the skin
- » Moisturizing
- » Thickener
- » Can be used as wetting agent
- » Disperses pigments and minerals

Emulsifier Applications			Skin Care	Sun Care	Colour Cosmetic	Hair Care	Deodorant	Wet Pipes	Fragrances
No	Product Name	INCI Name							
1	TRiest GDO-0411	Glyceryl Dioleate	●	●	●	●	●	●	
2	TRiest GML-2111	Glyceryl Laurate	●	●	●	●			
3	TRiest GMO-4011	Glyceryl Oleate	●	●	●	●	●	●	
4	TRiest GMO-9021	Glyceryl Oleate	●	●	●	●	●	●	
5	TRiest GMS-4011 SE	Glyceryl Stearate SE	●	●	●	●	●	●	●
6	TRiest PGDO-4011	PEG-8 Dioleate	●	●	●	●	●	●	
7	TRiest PGMO-4011	PEG-8 Oleate	●	●	●	●		●	
8	TRiest SML-1711	Sorbitan Laurate	●	●	●				
9	TRiest SMO-1711	Sorbitan Oleate	●	●	●				
10	TRiest SMS-1511	Sorbitan Stearate	●	●	●				

» CONSISTENCY FACTOR

These are esters of stearic acid and glycerine in solid forms. The intended use is as thickening agent in formulations.

Consistency Factor Applications			Skin Care	Sun Care	Colour Cosmetic	Hair Care	Deodorant	Wet Pipes
No	Product Name	INCI Name						
1	TRiest GDS-1911	Glyceryl Distearate	●	●	●			
2	TRiest GMS-9011	Glyceryl Stearate	●	●	●	●	●	●
3	TRiest GMS-4011	Glyceryl Stearate	●	●	●	●	●	●

EMOLLIENTS

Emollients are commonly used in cosmetic products. It provides moisture and brightness to the skin and enhances skin elasticity and smoothness by providing a barrier to prevent moisture loss.

TRiest MCT-6411

Caprylic/Capric Triglyceride

Caprylic/Capric Triglyceride is produced by the esterification reaction between glycerine and caprylic capric acid.

- » Protects moisture and water balance of the skin
- » Can be easily absorbed by the skin therefore, it does not leave an oily feel
- » Provides skin elasticity
- » Softens the skin
- » Helps cell renovation
- » Helps dispersing other components present in the product such as vitamins, pigments and active substances,
- » Helps to modify viscosity
- » Can be substitute for petroleum oils

TRiest EHS-0911

Ethylhexyl Stearate

Esterification reaction between 2-ethylhexyl alcohol and stearic acid produces 2-Ethylhexyl Stearate which is also known as Octyl Stearate. It is an ester derived from renewable sources with various uses in cosmetic and industrial applications.

- » Low viscosity
- » Does not leave an oily feel
- » Smoothens and softens the skin
- » Moisturizing
- » Thickener
- » Pigment wetting agent
- » Can be used as a dispersant and solvent

TRiest EHP-0811

Ethylhexyl Palmitate

It is produced by the esterification reaction between palmitic acid and 2-ethylhexyl alcohol. It is colorless and in liquid form.

- » Low viscosity
- » Smoothens the skin
- » Moisturizing
- » Shows good solvent properties, helps dispersing other components

TRiest CMCT-0811

Caprylic/Capric Succinic Triglyceride

It is a complex ester produced by the reaction between caprylic capric acid, succinic acid and glycerine.

- » Softens the skin
- » Highly absorbed by the skin
- » Enhances smoothness of the skin
- » High oxidative stability

Emollients Applications

No	Product Name	INCI Name	Skin Care	Sun Care	Colour Cosmetic	Hair Care	Depilatory	Wet Pipes	Oral Care	Fragrances
1	TRiest CMCT-0811	Caprylic/Capric Succinic Triglyceride	●	●	●	●				
2	TRiest EHC-0611	Ethylhexyl Cocoate	●	●	●	●	●			
3	TRiest EHL-0511	Ethylhexyl Laurate	●		●					
4	TRiest EHM-0611	Ethylhexyl Myristate	●		●	●	●			
5	TRiest EHO-0811	Ethylhexyl Oleate	●	●	●	●				
6	TRiest EHP-0811	Ethylhexyl Palmitate	●	●	●	●	●	●	●	●
7	TRiest EHS-0911	Ethylhexyl Stearate	●	●	●		●		●	
8	TRiest MCT-6411	Caprylic/Capric Triglyceride	●	●	●	●	●		●	●



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